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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,233	01/26/2005	Michael J. McKelvy	05-714-US	6516

7590 12/02/2008
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EXAMINER

LEVKOVICH, NATALIA A

ART UNIT	PAPER NUMBER
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1797

MAIL DATE	DELIVERY MODE
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12/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/523,233	Applicant(s) MCKELVY ET AL.	
	Examiner NATALIA LEVKOVICH	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 18 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-25 and 27-45 is/are pending in the application.
- 4a) Of the above claim(s) 1,3-24,44 and 45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25 and 27-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election / Restriction

1. Applicants' election of method claims 25 and 27-43 made without traverse in the reply filed 08/18/2008 has been acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 25 and 27-43 are rejected under 35 U.S.C. 112, second paragraph, as being unclear for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 25, line 1, "the reaction" lacks antecedent basis. The claim further recites the step of "placing the one or more sample materials into the chamber" followed by the step of "evacuating the chamber to remove unwanted gases and fluids". It is not clear how the unwanted fluids can be selectively evacuated without evacuating samples, and whether or not the claimed method is directed to solid sample processing. It is also unclear whether or not any steps directed to retaining the samples, are intended. Additionally, "supplying a fluid to the chamber under controlled conditions", is a passive

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limitation because it merely states the result of some unspecified actions leading to the result, rather than positively reciting the actions (such as a step of controlling the pressure of a supply fluid). Thus, the claim omits the essential method steps. See MPEP § 2172.01. See also claim 37, with respect to the controlled temperature; claim 39, with respect to the controlled amount; claim 40, with respect to the “controlled activity”; and claims 41-43, with respect to the fluid state / phase.

Regarding claims 38-40 it is not clear whether or not Applicant is trying to re-define, or to further limit the controlled conditions. Also, in claim 40, “supplying fluid with a controlled activity”, is unclear.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 25, 27-31, 33 and 37-43 are rejected under 35 U.S.C. 102(e) as anticipated by Bergh et al. (US 6737026).

With respect to claims 25, 27-28 and 37-43, Bergh et al. disclose methods of screening libraries of materials, including evaluating materials by in situ analytical measurements. The methods include a step of providing a chemical processing micro-

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reactor system 10 comprising, as shown in Figure 18J, a central chamber configured for holding sample materials and in communication with passageway 500 supplying fluid reactants 20. The samples are placed into micro-holders 600 and sealed with gaskets 300. Means for providing vacuum conditions ["evacuating fluids from the chamber"] can be employed for some processes (Col 46, lines 23 plus). The fluids are supplied to the chamber under controlled conditions: "for many chemical reactions of interest, temperatures are preferably above about 100.degree. C., and more preferably above about 200.degree. C. Pressure can generally range from about atmospheric pressure to 200 bar. Exemplary reaction conditions ...can typically range from about 0.degree. C. to about 1200.degree. C., preferably from about 25.degree. C. to about 800.degree. C., more preferably from about 100.degree. C. to about 800.degree. C., and most preferably from about 100.degree. C. to about 500.degree. C. Pressures ... can typically range from about atmospheric pressure to about 200 bar, from about atmospheric pressure to about 100 bar, and from about atmospheric pressure to about 50 bar" (Col 46, lines 9 plus).

Regarding claims 29-31, 33 and with reference to Figure 18I, the reactor effluent stream passes via glass passages 508 and 922 ["windows"] for further determinations /observations which can be made by means of infrared spectroscopy, optical spectroscopy, mass spectroscopy, etc. - (see Col 63, lines 47 plus; Col 64, lines 6 plus).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 32 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergh et al..

Bergh et al. do not specifically teach the spectroscopic methods to include NMR, Raman, X-ray, or inelastic / thermal neutron scattering spectroscopies. However, these methods are commonly employed in the art, and it would have been within the ordinary skill of an artisan at the time the invention was made to have modified methods of Berghof Tu et al. by employing the above listed spectroscopic methods, in order to provide more comprehensive material determination and to diversify the tests to be performed.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Levkovich whose telephone number is 571-272-2462.

The examiner can normally be reached on Mon-Fri, 2 p.m.-10 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jill Warden/
Supervisory Patent Examiner, Art Unit 1797

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